

PATENT COOPERATION TREATY

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INTERNATIONAL PRELIMINARY EXAMINATION REPORT (PCT Article 36 and Rule 70)

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Applicant's or agent's file reference T8467297WO1	FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/CA 03/01743	International filing date (day/month/year) 12.11.2003	Priority date (day/month/year) 12.11.2003
International Patent Classification (IPC) or both national classification and IPC B29C45/32		
Applicant STACKTECK SYSTEMS LTD. et al.		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.
2. This REPORT consists of a total of 6 sheets, including this cover sheet.
 - ☒ This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of 4 sheets.

3. This report contains indications relating to the following items:
 - I ☒ Basis of the opinion
 - II ☐ Priority
 - III ☐ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
 - IV ☐ Lack of unity of invention
 - V ☒ Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
 - VI ☐ Certain documents cited
 - VII ☐ Certain defects in the international application
 - VIII ☐ Certain observations on the international application

Date of submission of the demand 06.05.2005	Date of completion of this report 01.07.2005
Name and mailing address of the international preliminary examining authority:  European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523656 epmu d Fax: +49 89 2399 - 4465	Authorized Officer Kujat, C Telephone No. +49 89 2399-2360 

**INTERNATIONAL PRELIMINARY
EXAMINATION REPORT**

International application No. PCT/CA 03/01743

I. Basis of the report

1. With regard to the **elements** of the international application (*Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17)*):

Description, Pages

1-12 as originally filed

Claims, Numbers

1-11 received on 06.05.2005 with letter of 04.05.2005

Drawings, Sheets

1/9-9/9 as originally filed

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language: , which is:

- ☐ the language of a translation furnished for the purposes of the international search (under Rule 23.1(b)).
☐ the language of publication of the international application (under Rule 48.3(b)).
☐ the language of a translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
☐ filed together with the international application in computer readable form.
☐ furnished subsequently to this Authority in written form.
☐ furnished subsequently to this Authority in computer readable form.
☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. The amendments have resulted in the cancellation of:

- ☐ the description, pages:
☐ the claims, Nos.:
☐ the drawings, sheets:

**INTERNATIONAL PRELIMINARY
EXAMINATION REPORT**

International application No. PCT/CA 03/01743

5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)).

(Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.)

6. Additional observations, if necessary:

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes: Claims	1-11
	No: Claims	
Inventive step (IS)	Yes: Claims	1-11
	No: Claims	
Industrial applicability (IA)	Yes: Claims	1-11
	No: Claims	

2. Citations and explanations

see separate sheet

Re Item V

**Reasoned statement with regard to novelty, inventive step or industrial applicability;
citations and explanations supporting such statement**

Reference is made to the following documents:

- D1: US-A-5 460 510 (GELLERT JOBST U) 24 October 1995 (1995-10-24)
- D2: US-A-3 205 911 (SWICK JR GEORGE E) 14 September 1965 (1965-09-14)
- D3: PATENT ABSTRACTS OF JAPAN) -& JP 58051125 (MITSUBISHI METAL CORP),
25 March 1983 (1983-03-25)

- 1.1 Document D1, which is considered to represent the most relevant state of the art, discloses (cf. figure 2) a valved cross over nozzle for an injection moulding apparatus with tapered valve seats (gate inserts 56 and 74, see figure 2 for taper) and tapered valve heads (tapered tips 98 and 126) from which the subject-matter of claim 1 differs in that the first and second valve head parts are suitable for being moved in their joined state together as one member in the same direction relative to the housing.
- 1.2 The subject-matter of claim 1 is therefore new (Article 33(2) PCT).
- 1.3 The problem to be solved by the present invention may be regarded as providing an alternative cross over nozzle arrangement with virtually no drool (see description, page 2, lines 8 to 11).
- 1.4 The solution to this problem proposed in claim 1 of the present application is considered as involving an inventive step (Article 33(3) PCT) for the following reasons:
 - 1.4.1 Document D1 discloses valve heads which are tapered in opposing directions (see figure 2). In order to open the cross over nozzle, the valve heads therefore have to be moved as two members in opposing directions (compare figures 1 and 2).
 - 1.4.2 While document D2 discloses a cross over nozzle with tapered valve heads (30, 60 in combination with 64) which are suitable for first being joined (see figure 2) and then being moved together as one member in the same direction (see

figure 3) relative to the housing, the nozzle of D2 is only used for refrigerating purposes. The person skilled in the art of cross over nozzles for injection moulding apparatuses would not consult the field of refrigerating in order to improve the cross over nozzle of D1.

- 1.4.3 Document D3 discloses a cross over nozzle for an injection moulding apparatus wherein first and second valve head parts (figure 1, reference numerals 5 and 8) are suitable for first being joined (see figure 1) and then being moved together as one in the same direction relative to the housing (see figure 4). However, D3 only discloses cylindrical valve seats and cylindrical valve heads. The skilled person would not replace these seats and heads with tapered ones, as disclosed in D2, since the valve heads then would not be movable as one member in the same direction any more.
- 1.5 Claim 1 defines the subject-matter in terms of the result to be achieved ("suitable for ... being moved together as one member in the same direction"), without providing the technical features necessary for achieving this result. However, claim 1 clearly stipulates that both valve seats and both valve heads are tapered. The only configuration wherein these particular valve heads are suitable for being moved together as one member in the same direction upon being joined seems to be that both valve heads (and corresponding valve seats) are tapered in the same direction (see figures 1 to 3 of the application in suit). The skilled person does not need to exercise inventive skill in order to arrive at that configuration. Therefore, claim 1 meets the requirements of Article 6 PCT in that the matter for which protection is sought is clearly defined.
2. Claims 2 to 11 are dependent on claim 1 and as such also meet the requirements of the PCT with respect to novelty and inventive step.
- 3.1 The vague and imprecise statement ("spirit") in the description on page 12 implies that the subject-matter for which protection is sought may be different to that defined by the claims, thereby resulting in lack of clarity (Article 6 PCT) when used to interpret them.
- 3.2 Contrary to the requirements of Rule 5.1(a)(ii) PCT, the relevant background art

disclosed in the documents D1 to D3 is not mentioned in the description, nor are these documents identified therein.

- 3.3 Independent claim 1 is not in the two-part form in accordance with Rule 6.3(b) PCT, which in the present case would be appropriate, with those features known in combination from the prior art (document D1) being placed in the preamble (Rule 6.3(b)(I) PCT) and with the remaining features being included in the characterising part (Rule 6.3(b)(ii) PCT).
- 3.4 The features of the claims are not provided with reference signs placed in parentheses (Rule 6.2(b) PCT).